



North Carolina Department of Transportation

Steve Varnedoe, PE
State Maintenance and Equipment Engineer



BACKGROUND

The 2003 legislative session is considering the North Carolina Moving Ahead Program to be administered by the Secretary and the Department of Transportation.

Proposed funding for the highway portion for two fiscal years:

FY 2003 - 2004	\$270 million
FY 2004 - 2005	\$360 million

Each Division's share of these funds for each fiscal year is based on the equity formula as stated in General Statute 136-17.2A



PROGRAM GOAL

The goal of the North Carolina Moving Ahead Program is to improve safety and mobility on North Carolina's highways by preserving, modernizing, and improving the maintenance of the state highway system.



PROGRAM GOAL

Projects selected for the Program should serve to:

- Enhance safety
- Reduce congestion
- Reduce accidents
- Reduce fatal crashes
- Upgrade pavement widths and shoulders
- Extend pavement life of roads
- Provide smooth pavements
- Rehabilitate or replace deficient bridges
- Improve horizontal and vertical alignments
- Provide adequate drainage



PROJECT SELECTION CRITERIA

Pavement Condition

- Pavement Condition Survey Rating of 85 or less on primary routes, and 80 or less for secondary routes

Pavement or Lane Width

- Primary System: < 11 ft for ADT between 1000 and 2000
< 12 ft for ADT greater than 2000
- Secondary System: < 11 ft for ADT greater than 2000
- Any route with lane widths < 9 ft should be evaluated



PROJECT SELECTION CRITERIA

Shoulder Width / Vehicle Recovery Area

- Need to meet NCMA Design Guidelines or AASHTO Green Book
- Eliminate, improve or mitigate roadside hazards

Traffic Volume (ADT) or Characteristics

- Higher priority should be given to routes with $ADT > 2000$ and Primary routes
- Projects considered on low volume secondary routes should generally be selected based on crash history or bridge replacement needs



PROJECT SELECTION CRITERIA

Traffic Flow

- Avoid reduction in posted speeds through improvements
- Add, upgrade or interconnect signals to improve traffic flow
- Add turn lanes to improve traffic flow and the potential for crashes

Crash Data

- Consider projects where crash data suggests that pavement width, shoulders, sight distance, markings, etc may be contributory



PROJECT SELECTION CRITERIA

Environmental Impacts

- Minimal to no environmental impacts.
- Projects requiring an EA should be considered for yr. 2 only

Right of Way

- Valid r/w of 60 ft or greater is preferred
- Can purchase r/w or easements, but held to a minimum
- Utility relocation costs are eligible, but held to a minimum



PROJECT SELECTION CRITERIA

Bridge Replacement Eligibility Requirements

- Candidate project should have a target sufficiency rating <50
- Functional obsolescence and crash data should be considered
- Traffic Use characteristics should be considered
- Only projects with off-site detours should be considered

Other Screening Criteria

- Currently programmed and funded TIP projects will not be considered
- Coordination of Primary routes considered across division lines
- Coordinate with other funding sources to expand the effectiveness of the program (i.e. SB 1005, R-4067, secondary road construction, contract resurfacing)



PROGRAM OUTCOME:

Examples of improvements to meet program goals:

- Widening two-lane roads
- Widening narrow shoulders
- Providing turn lanes
- Providing horizontal and/or vertical realignments
- Resurfacing and/or rehabilitation of roads
- Eliminating pavement edge drop offs
- Installing/upgrading roadway lighting
- Installing/upgrading pavement markings and markers
- Providing sight distance improvements



PROGRAM OUTCOME:

Examples of improvements to meet program goals:

- Providing signing improvements
- Providing channelization
- Providing/upgrading impact attenuators and breakaway devices
- Installing guardrail
- Removal of roadside hazards
- Replacement of substandard, narrow and/or deficient bridges
- Upgrading under-designed and outdated drainage systems
- Stabilize slopes



Before:

- * Narrow Lanes / 10 Feet
- * Low Shoulder Drop Offs/
Inadequate Vehicle Recovery
Area
- * Deteriorated Pavement Conditions
- * Worn Pavement Markings
- * No Reflective Markers



After:

- * Wider Lanes / 12 Feet
- * Paved Shoulders
- * Improved Vehicle Recovery Area
- * Restored Pavement Conditions
- * New Pavement Marking
- * Reflective Pavement Markers to
Improve Night Time Visibility



Before:

- * Rural Primary Highway
- * 55 MPH Speed Limit
- * Heavy Commuter Traffic
- * Rapid Suburban Growth Area
- * Subdivision Creates Turning Conflicts



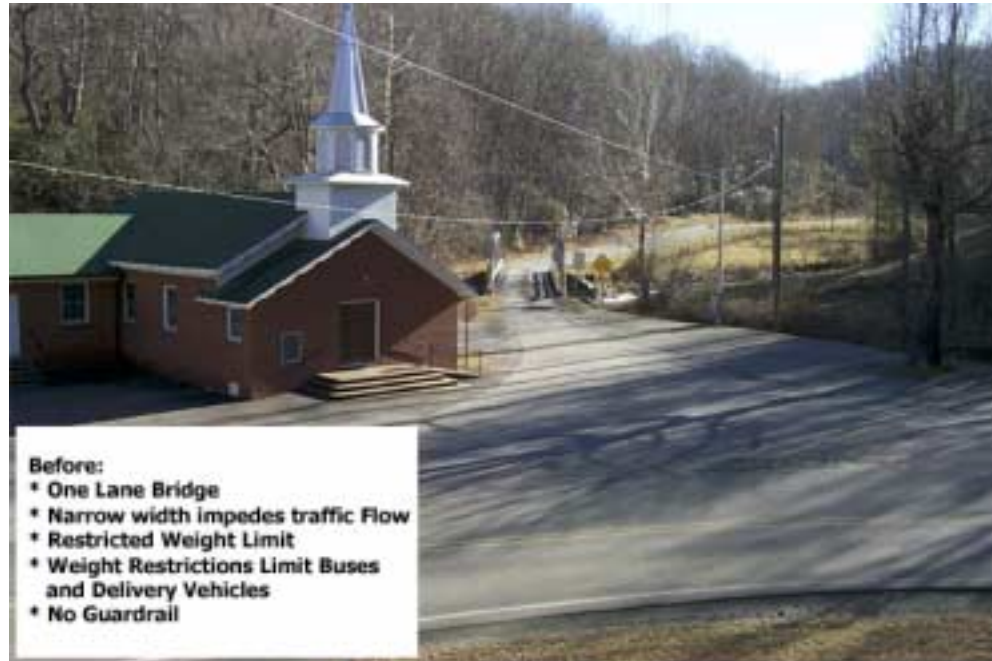
After:

- * New Left Turn Lane
- * Turning Conflicts Reduced
- * Through Traffic can Maintain Speed
- * Potential for Crashes Greatly Reduced









Before:

- * One Lane Bridge
- * Narrow width impedes traffic flow
- * Restricted Weight Limit
- * Weight Restrictions Limit Buses and Delivery Vehicles
- * No Guardrail



After:

- * New wider two-lane bridge
- * Improved traffic flow
- * Potential for accidents reduced
- * No weight restrictions
- * New Structure blends with community environment
- * Guardrail added to enhance safety



PROGRAM DEVELOPMENT

- Request for proposed projects (due in May 2, 2003)
- Operations workshop (held in April 2003)
- Develop two-year program (by June 15, 2003)
- Submission to MA Committee
- Approval to proceed by Chief Engineer
- Lettings - November 2003 to February 2004



PROJECT SELECTION HIGHLIGHTS

- Candidate projects for the Program were received from local government, legislators, MPOs, RPOs, etc on May 2
- 10% of the total NCMA program or about \$70 million will be earmarked for bridge replacement projects
- Project values should not generally exceed \$2.5 million
- A goal of at least one project per county over the 2-year program
- Private Engineering Firms should be used to ensure delivery
- Interstate projects will not be included
- Stand alone projects such as guard rail will not be approved; however, these improvements can be incorporated into another project



Questions?